Listing of the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) A fire fighting vehicle comprising:

a turret ~~including a base which is~~ rotationally coupled to the vehicle, the turret being configured to ~~rotate relative to the vehicle at the base; and~~ dispense a fire-extinguishing agent;

~~a turret controller configured to use feedback control to control the movement of the turret from a first position where the turret is positioned at a first angle of rotation at the base to a second position where the turret is positioned at a second angle of rotation at the base, the first and second angles being different.~~

a first gear immovably coupled to the vehicle;

a second gear coupled to the turret so that the second gear moves with the turret as the turret rotates relative to the vehicle, the second gear also being rotationally coupled to the first gear; and

a position sensor coupled to the second gear, the position sensor being used to determine the position of the turret based on the rotational motion of the second gear.

2. (Currently Amended) The fire fighting vehicle of ~~claim 1~~ claim 3 wherein the turret ~~controls~~ controller uses feedback control to control the movement of the turret from ~~the~~ a first position to ~~the second~~ a predetermined position ~~in response to a single input from an operator~~.

3. (Currently Amended) The ~~fire fighting vehicle~~ turret of ~~claim 1~~ claim 14 wherein the turret is ~~configured to rotate in a plane that is approximately horizontal.~~ rotationally coupled to the vehicle, wherein the vehicle is a fire fighting vehicle capable of dispensing a fire extinguishing agent from the turret.

4. (Currently Amended) The fire fighting vehicle of ~~claim 1~~ claim 2 wherein the first position corresponds to a deployed position where the turret is positioned to ~~dispense a~~ dispense the fire ~~fighting~~ extinguishing agent on a region of interest and the second position corresponds to a stored position ~~in which~~ where the turret is stored for vehicle travel.

5. (Currently Amended) The fire fighting vehicle of claim 4 ~~further~~ comprising a locking mechanism that locks the turret in place after the turret reaches the ~~second~~ stored position.

6. (Cancelled)

7. (Currently Amended) The fire fighting vehicle of ~~claim 1~~ claim 2 wherein the first position corresponds to a stored position ~~in which~~ where the turret is stored for vehicle travel and the second position corresponds to a deployed position where the turret is positioned to dispense ~~a fire fighting~~ the fire extinguishing agent on a region of interest.

8. (Currently Amended) The fire fighting vehicle of ~~claim 1~~ claim 14 wherein the turret controller ~~causes~~ is programmed to move the turret ~~to move~~ according to a predetermined pattern.

9-13. (Cancelled)

14. (Currently Amended) A turret ~~for a vehicle~~ configured to be rotationally coupled to a vehicle which includes a first gear that is immovably coupled to the vehicle, the turret comprising:

~~a first gear coupled to the vehicle, the first gear being stationary relative to the vehicle;~~

~~an apparatus coupled to the vehicle and configured to rotate relative to the vehicle, the apparatus including a second gear which is rotatably coupled to the first gear and is configured to rotate as the apparatus rotates relative to the vehicle; and~~

a second gear coupled to the turret, the second gear being configured to be rotationally coupled to the first gear;

a turret controller which uses feedback control to control rotation of the turret relative to the vehicle; and

a position sensor coupled to the second gear, the position sensor being configured to ~~measure the position of the apparatus.~~ provide information related to the position of the turret to the turret controller;

wherein the turret is configured to engage the first gear to rotate the turret relative to the vehicle.

15. (Currently Amended) The turret according to claim 14 wherein the ~~apparatus~~ turret rotates in an approximately horizontal plane.

16. (Original) The turret according to claim 14 wherein the position sensor is a rotary potentiometer.

17. (Currently Amended) The turret according to claim 14 ~~wherein the apparatus further comprises~~ comprising a third gear ~~rotatably~~ rotationally coupled to the first gear, the third gear being configured to drive ~~the~~ rotation of the ~~apparatus~~ turret relative to the vehicle.

18. (Original) The turret according to claim 17 wherein the third gear is driven hydraulically.

19. (Original) The turret according to claim 17 wherein the second gear meshes with the third gear.

20. (Currently Amended) The turret according to claim 14 wherein the second gear is configured to drive ~~the~~ rotation of the ~~apparatus~~ turret.

21. (Currently Amended) The turret according to claim 14 wherein the ~~apparatus~~ turret is configured to dispense fire ~~fighting~~ extinguishing agent.

22. (Currently Amended) The turret according to claim 14 wherein the ~~apparatus~~ turret is configured to rotate through a range of rotation that is not greater than approximately 90 degrees.

23. (Currently Amended) A ~~fire fighting~~ vehicle comprising:

a first gear ~~fixedly mounted~~ immovably coupled to the vehicle;

an apparatus rotationally coupled to the vehicle ~~and configured to rotate relative to the vehicle~~, the apparatus including a second gear which is ~~rotatably~~ rotationally coupled to the first

gear and is configured to ~~rotate as~~ move with the apparatus as the apparatus rotates relative to the ~~base~~ vehicle; and

a position sensor coupled to the second gear, the position sensor being ~~configured to measure~~ used to determine the position of the apparatus based on the rotational motion of the second gear.

24. (Currently Amended) The ~~fire fighting~~ vehicle according to claim 23 wherein the apparatus rotates in an approximately horizontal plane.

25. (Currently Amended) The ~~fire fighting~~ vehicle according to claim 23 wherein the position sensor is a rotary potentiometer.

26. (Currently Amended) The ~~fire fighting~~ vehicle according to claim 23 wherein the apparatus further comprises a third gear ~~rotatably~~ rotationally coupled to the first gear, the third gear being configured to drive ~~the~~ rotation of the apparatus.

27. (Currently Amended) The ~~fire fighting~~ vehicle according to claim 26 wherein the third gear is driven hydraulically.

28. (Currently Amended) The ~~fire fighting~~ vehicle according to claim 23 wherein the apparatus is configured to dispense a fire ~~fighting~~ extinguishing agent.

29. (Currently Amended) The ~~fire fighting~~ vehicle according to claim 23 wherein the apparatus is configured to rotate through a range of rotation that is not greater than approximately 90 degrees.

30. (Currently Amended) The ~~fire fighting~~ vehicle according to claim 23 wherein the first gear meshes with the second gear.

31. (Currently Amended) The ~~fire fighting~~ vehicle according to claim 23 wherein at least a portion of the apparatus is extendable.

32. (New) A vehicle comprising:

a turret rotationally coupled to the vehicle;

a first gear which is immovably coupled to the vehicle;

a second gear coupled to the turret, the second gear also being rotationally coupled to the first gear;

a drive gear which is separate from the second gear and is coupled to the turret, the drive gear being rotationally coupled to the first gear so that rotating the drive gear causes the turret to rotate relative to the vehicle; and

a position sensor coupled to the second gear, the position sensor being used to determine the position of the turret based on the rotational motion of the second gear.

33. (New) The vehicle according to claim 32 wherein the turret rotates relative to the vehicle in an approximately horizontal plane.

34. (New) The vehicle according to claim 32 wherein the position sensor is a rotary potentiometer.

35. (New) The vehicle according to claim 32 wherein the drive gear is driven hydraulically.

36. (New) The vehicle according to claim 32 wherein the turret is configured to dispense a fire extinguishing agent.

37. (New) The vehicle according to claim 32 wherein the turret is configured to rotate through a range of rotation that is not greater than approximately 90 degrees.

38. (New) The vehicle according to claim 32 wherein the vehicle is a fire fighting vehicle and the turret is used to dispense a fire extinguishing agent.

39. (New) The vehicle according to claim 32 wherein at least a portion of the turret is extendable.

40. (New) The fire fighting vehicle according to claim 1 wherein the position sensor is a rotary potentiometer.

41. (New) The fire fighting vehicle according to claim 1 comprising a drive gear rotationally coupled to the first gear, the drive gear being used to drive rotation of the turret relative to the vehicle.

42. (New) The fire fighting vehicle according to claim 1 wherein the turret is configured to rotate through a range of rotation that is no more than approximately 90 degrees.

43. (New) The fire fighting vehicle according to claim 1 wherein at least a portion of the turret is extendable.

44. (New) The fire fighting vehicle according to claim 1

wherein the turret comprises

an adjustable mount assembly, the adjustable mount assembly being rotationally coupled to the chassis and vehicle body combination, and the mount assembly including a fire-extinguishing agent delivery system capable of transporting the fire-extinguishing agent through the mount assembly; and

a turret nozzle mounted to the adjustable mount assembly, the turret nozzle being capable of receiving the fire-extinguishing agent from the mount assembly; and

wherein the fire fighting vehicle comprises a power distribution and control system, the power distribution and control system including

a power source;

a power transmission link;

a plurality of output devices including a plurality of actuators capable of adjusting the mount assembly to adjust the position and orientation of the turret nozzle;

a plurality of input devices including a plurality of position sensors capable of providing position information pertaining to the position and orientation of the turret nozzle, the plurality of input devices further including an input device associated with an operator interface;

a communication network; and

a plurality of microprocessor-based interface modules, the plurality of interface modules being coupled to the power source by way of the power transmission link, the plurality of interface modules being interconnected to each other by way of the communication network, the plurality of interface modules being coupled to the plurality of input devise and to the plurality of output devices by way of communication links, the plurality of interface modules including one or more interface modules that are coupled to the plurality of positions sensors, the plurality of actuators, and/or the input device associated with the operator interface;

wherein the plurality of interface modules, the plurality of input devices, and the plurality of output devices are distributed throughout the fire fighting vehicle;

wherein each respective interface module is locally disposed with respect to the respective input and output device to which the respective interface module is coupled so as to permit distributed data collection from the plurality of input devise and distributed power distribution to the plurality of output devices; and

wherein each of the interface modules is configured to receive and store I/O status information pertaining to the input and/or output devices coupled to the remaining interface modules.